Barn Fan Stage Sequence

On the Old houses (Arlington south 1-12, Arlington North 13-26, Pullets A – G, Maricopa 1-5)

Fan Stages:

The fans stages are determined by TMT (Temperature to Maintain) what the set point is set at. Then a timer in the PLC waits for a period of time (set by the barn manager) which is usually 30 seconds. The Logic tries to tune to .3 of a degree to maintain temperature.

Pulse time:

The Pulse timer is set by the Barn Manager and we usually set for 30 minutes. This will add an additional stages set by the Barn manager, this is usually set to 2. This feature allows the fan to increase the air exchanges in the house for the environment comfort.

House Temperature control

The RTD's (Temperature transmitters) in the House are spread across 12 or more areas in the house as zones. The PLC looks at all the RTD's and does an average which then is calculated for the TMT logic. If a RTD Fails it is programmed on an alarm and the TMT for that one RTD is set for 77 DEG so the Average is not compromised.

Outside Temperature limits

A new feature added to the system is to limit the number of fan stages during cooler temperatures. This feature "Clamps" or limits the number of stages that can run while cooler temperatures are present. This also is set by the barn manager for animal comfort.

On the Newer houses (Tonopah 1-10, Maricopa 6-7, pullets H – J)

Fan stage

The Fan Stage are much the same setup as above except they use a PID loop which holds a closer Set point to the TMT temperature